Claims

1. Combination consisting of a display and a loudspeaker (10), whereby at least one part of a sound-emitting surface (12) of the loudspeaker forms the display which is touch-sensitive, and at least one recognition means for tactile contacts made with the display are provided.

2. Loudspeaker according to Claim 1, characterized in that at least one part of the at least one part of a sound-emitting surface (12) of the loudspeaker (10) which forms the display forms a recognition means for tactile contacts made with the display.

3. Loudspeaker according to Claim 1 or 2, characterized in that at least one actuator (17) of the loudspeaker and/or at least one sensor (18; 32), in particular an acoustic or optical sensor, is/are provided as a recognition means for tactile contacts made with the display.

4. Loudspeaker according to Claim 3, characterized in that at least one actuator (17) of the loudspeaker and/or at least one sensor (18) is located in the vicinity of the edge or at the edge of the sound-emitting surface (12) of the loudspeaker (10).

5. Loudspeaker according to Claim 3 or 4, characterized in that at least one actuator (17) and/or sensor (32) is/are located beneath the sound-emitting surface (12) of the loudspeaker.

6. Loudspeaker according to one of Claims 3 to 5, characterized in that at least one actuator and/or sensor is/are located on the sound-emitting surface (12) of the loudspeaker.

7. Loudspeaker according to one of Claims 3 to 6, characterized in that a plurality of actuators (17) and/or sensors (32) are located in distributed fashion over the area which is covered by the sound-emitting surface (12) of the loudspeaker.

8. Loudspeaker according to one of Claims 3 to 7, characterized in that the at least one actuator (17) comprises at least one piezo-electric element and/or one electromagnetic converter, and/or the at least one sensor (18; 32) comprises at least one piezo-electric element and/or one electromagnetic converter.

9. Loudspeaker according to one of Claims 3 to 8, characterized in that evaluation means (28; 40) are provided for evaluating the signal (26; 38) delivered by the at least one actuator (16; 17) and/or by the at least one sensor (18; 32).

10. Method for recognizing tactile contacts with a display which is touch-sensitive and combined with a loudspeaker (10), whereby at least one part of a sound-emitting surface (12) of the loudspeaker forms the display and a recognition means recognizes tactile contacts made with the display.

11. Method according to Claim 10, characterized in that a tactile contact with the display is recognized through a changed decoupling of sound by way of the sound-emitting surface (12) of the loudspeaker and/or through at least one standing wave and/or reflections which are picked up using at least one sensor (18; 32), in particular an acoustic or optical sensor.

12. Method according to Claim 10 or 11, characterized in that the loudspeaker emits a audio signal which has a frequency outside the

audible frequency range of sound waves, and changes in the audio signal emitted are detected in order to recognize a tactile contact with the display.

13. Method according to Claim 12, characterized in that the audio signal is emitted together with audio signals having frequencies in the audible range.

14. Method according to one of Claims 10 to 13, characterized in that a tactile contact is recognized by means of a reaction to at least one actuator (17) in the loudspeaker.

15. Method according to Claim 14, characterized in that the at least one actuator converts the force acting as a result of the tactile contact with the display into an electrical signal.

16. Method according to Claim 15, characterized in that a position of a tactile contact on the display is recognized by
- evaluating the electrical signals from at least two actuators which detect the tactile contact, particularly comparing them with one another, and/or
- an impedance measurement and/or
- a differential level measurement using the level of at least two signals from different sensors and/or actuators and/or
- an attenuation measurement of sound waves emitted by the sound surface and/or
- evaluating multiple-path propagations and/or reflections of waves propagating on the sound surface.